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EXAMINER

STORK, KYLE R

ART UNIT PAPER NUMBER

2178

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Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|--------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/907,240 | CHEN ET AL. | |
| | Examiner | Art Unit | |
| | Kyle R Stork | 2178 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>17 July 2001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the application filed 17 July 2001 and the Information Disclosure Statement filed on the same date.
2. Claims 1-74 are pending. Claims 1, 13, 25, 37, 42, 53, and 64 are independent claims.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 17 July 2001 was filed and is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 45-47, 56-58, and 67-69 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. The term "is reversible" in claims 45, 56, and 67 is a relative term which renders the claim indefinite. The term "is reversible" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

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7. The term "is not so reversible" in claims 46, 57, and 68 is a relative term which renders the claim indefinite. The term "is not so reversible" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

8. Claims 47, 58, and 69 are rejected for being dependent upon rejected base claims.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 25-41 and 64-74 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Section 2100 of the MPEP states:

b) Nonfunctional Descriptive Material

Descriptive material that cannot exhibit any functional interrelationship with the way in which computing processes are performed does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35 U.S.C. 101. Thus, Office personnel should consider the claimed invention as a whole to determine whether the necessary functional interrelationship is provided.

Where certain types of descriptive material, such as music, literature, art, photographs and mere arrangements or compilations of facts or data, are merely stored so as to be read or outputted by a computer without creating any functional interrelationship, either as part of the stored data or as part of the computing processes performed by the computer, then such descriptive material alone does not impart functionality either to the data as so structured, or to the computer. Such "descriptive material" is not a process, machine, manufacture or composition of matter. (Data consists of facts, which become information when they are seen in context and convey meaning to people. Computers process data without any understanding of what that data represents. Computer Dictionary 210 (Microsoft Press, 2d ed. 1994).)

The policy that precludes the patenting of nonfunctional descriptive material would be easily frustrated if the same descriptive material could be patented when claimed as an article of manufacture. For example, music is commonly sold to consumers in the format of a compact disc. In such cases, the known compact disc acts as nothing more than a

carrier for nonfunctional descriptive material. The purely nonfunctional descriptive material cannot alone provide the practical application for the manufacture. Office personnel should be prudent in applying the foregoing guidance. Nonfunctional descriptive material may be claimed in combination with other functional descriptive multi-media material on a computer-readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. 101. The presence of the claimed nonfunctional descriptive material is not necessarily determinative of nonstatutory subject matter. For example, a computer that recognizes a particular grouping of musical notes read from memory and upon recognizing that particular sequence, causes another defined series of notes to be played, defines a functional interrelationship among that data and the computing processes performed when utilizing that data, and as such is statutory because it implements a statutory process.

As per independent claims 25, 37, and 64, the applicant discloses "a medium readable by a data processing device and embodying code," "at least one medium embodying code readable by at least one data processing device," and "a medium, readable by at least one data processing device embodying code," respectively. These limitations are not directed to statutory subject matter. The claims therefore fail to meet the requirements of U.S.C. 101, and are subsequently rejected.

Claims 26-36, 38-41, and 65-74 are rejected for being dependent upon a rejected base claim.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-2, 4-8, 13-14, 16-20, 25-26, 28-32, 37-39, 41-44, 49, 53-55, 60, 64-66, and 71 are rejected under 35 U.S.C. 102(b) as being anticipated by Xedi.org (XML and EDI: Peaceful Co-Existence, 1999).

As per independent claim 1, Xedi.org discloses a method for creating electronic communication, comprising executing the following operations in at least one data processing device:

- First retrieving data from at least one type of data source into a first electronic format using at least one first annotated schema (page 12, Figure 8; pages 11-14: Here, the user can access data in EDI or XML language.)
- Second retrieving data from the first electronic format into a second electronic format (page 12, Figure 8; pages 11-14: Here, the user can access data in EDI or XML language. If the first electronic format is EDI, then here the second format is XML. Similarly, if the first electronic format is XML, then here the second format is EDI.)

As per dependent claim 2, Xedi.org discloses the method wherein the first electronic format comprises at least one XML document (page 11).

As per dependent claim 4, Xedi.org discloses the method wherein the first and second retrieving are done using a same type software engine applied first to the least one type of data source and then to the first electronic format (Figure 8).

As per dependent claim 5, Xedi.org discloses the method wherein the second electronic format belongs to the category of XML/EDI electronic document specification languages (page 11).

As per dependent claim 6, Xedi.org discloses the method wherein the first annotated schema comprises at least one first annotated DTD and the second annotated schema comprises at least one second annotated DTD (page 11, last

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paragraph: Here, the EDI-XML translator acts at the annotated DTD for both schemas, as it converts the tags from each schema to tags understandable by the other schema.)

As per dependent claim 7, Xedi.org discloses the method wherein the at least one second annotated schema comprises:

- A single DTD for all possible document types within a single industrial electronic document specification language (page 10, last paragraph)
- Annotations for retrieving specifications for a desired document type from the first electronic format (page 11, last paragraph)

As per dependent claim 8, the applicant discloses the limitations similar to those in claim 4. Claim 8 is thusly rejected under Xedi.org.

As per independent claim 13, Xedi.org discloses at least one data processing device comprising:

- At least one memory for storing code and data (Figure 8: Here, the ERP and MRP store code and data.)
- At least one processor for performing the following operations using the at least one memory (Figure 8: Here, the EDI and XML servers contain processors.)
- The limitations similar to those in claim 1 (see claim 1 above)
- Creating an electronic communication based on the at least one second annotated data schema (Figure 8: Here, the schema is transmitted between the servers through the internet.)

As per dependent claim 14, the applicant discloses the limitations similar to those in claim 2. Claim 14 is thusly rejected under Xedi.org.

As per dependent claim 16, the applicant discloses the limitations similar to those in claim 4. Claim 16 is thusly rejected under Xedi.org.

As per dependent claim 17, the applicant discloses the limitations similar to those in claim 5. Claim 17 is thusly rejected under Xedi.org.

As per dependent claim 18, the applicant discloses the limitations similar to those in claim 6. Claim 18 is thusly rejected under Xedi.org.

As per dependent claim 19, the applicant discloses the limitations similar to those in claim 7. Claim 19 is thusly rejected under Xedi.org.

As per dependent claim 20, the applicant discloses the limitations similar to those in claim 4. Claim 20 is thusly rejected under Xedi.org.

As per dependent claim 25, the applicant discloses the medium readable by a processing device and embodying code for performing the operations similar to those in claim 13. Claim 25 is thusly rejected under Xedi.org.

As per dependent claim 26, the applicant discloses the limitations similar to those in claim 2. Claim 26 is thusly rejected under Xedi.org.

As per dependent claim 28, the applicant discloses the limitations similar to those in claim 4. Claim 28 is thusly rejected under Xedi.org.

As per dependent claim 29, the applicant discloses the limitations similar to those in claim 5. Claim 29 is thusly rejected under Xedi.org.

As per dependent claim 30, the applicant discloses the limitations similar to those in claim 6. Claim 30 is thusly rejected under Xedi.org.

As per dependent claim 31, the applicant discloses the limitations similar to those in claim 7. Claim 31 is thusly rejected under Xedi.org.

As per dependent claim 32, the applicant discloses the limitations similar to those in claim 4. Claim 32 is thusly rejected under Xedi.org.

As per independent claim 37, Xedi.org discloses at least one medium embodying code readable by at least one data processing device, the code comprising:

- A universal schema adapted to create all possible document types suitable for use with a single electronic document specification language (page 10, last paragraph)
- Annotations adapted to guide retrieval of data from at least one type of data source to specify a particular output document in accordance with the universal schema (pages 12-13, Converting EDI and XML: Here, the translator transforms EDI messages (annotations) into an XML document.)

As per dependent claim 38, the applicant discloses the limitations similar to those in claim 2. Claim 38 is thusly rejected under Xedi.org.

As per dependent claim 39, the applicant discloses the limitations similar to those in claim 6. Claim 39 is thusly rejected under Xedi.org.

As per dependent claim 41, Xedi.org discloses the medium wherein the universal DTD attaches unique labels to corresponding intermediate XML document or value pairs (Figure 9; pages 12-13, Converting EDI and XML).

As per independent claim 42, Xedi.org discloses a method for depositing data into at least one type of data source, the method comprising executing the following operations in a digital data processing device:

- Receiving a specification for deposit (Figure 8; pages 11-14)
- Processing the specification in accordance with an annotated schema (pages 12-13, Converting EDI and XML)
- Responsive to the processing, depositing data in at least one type of data source in accordance with a local format of that source (pages 11-114: Here, the document is converted from either XML or EDI to either XML or EDI in order for the receiver to process the request.)

As per dependent claim 43, the applicant discloses the limitations similar to those in claim 6. Claim 43 is thusly rejected under Xedi.org.

As per dependent claim 44, the applicant discloses the limitations similar to those in claim 2. Claim 44 is thusly rejected under Xedi.org.

As per dependent claim 49, the Xedi.org discloses the method wherein the processing comprises:

- First processing the specification in accordance with a universal annotated schema adapted to all document types supported by a given industrial electronic document specification language, in order to convert the specification into a first local format (page 10, last paragraph; page 12, Figure 8; pages 11-14)

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- Second processing the first local format in accordance with a local annotated schema to convert the first local format to a second local format (page 12, Figure 8; pages 11-14)

As per independent claim 53, the applicant discloses the device similar to claim 13 and used to perform the method of claim 42. Claim 53 is thusly rejected under Xedi.org.

As per dependent claim 54, the applicant discloses the limitations similar to those in claim 6. Claim 54 is thusly rejected under Xedi.org.

As per dependent claim 55, the applicant discloses the limitations similar to those in claim 2. Claim 55 is thusly rejected under Xedi.org.

As per dependent claim 60, the applicant discloses the limitations similar to those in claim 49. Claim 60 is thusly rejected under Xedi.org.

As per independent claim 64, the applicant discloses the medium, readable by at least one data processing device embodying code for performing the method of claim 42. Claim 64 is thusly rejected under Xedi.org.

As per dependent claim 65, the applicant discloses the limitations similar to those in claim 6. Claim 65 is thusly rejected under Xedi.org.

As per dependent claim 66, the applicant discloses the limitations similar to those in claim 2. Claim 66 is thusly rejected under Xedi.org.

As per dependent claim 71, the applicant discloses the limitations similar to those in claim 49. Claim 71 is thusly rejected under Xedi.org.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3, 9, 15, 21, 27, 33, 50, 61, and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi.org in further in view of Kotok (XML and EDI Lessons Learned and Baggage to Leave Behind, 1999).

As per dependent claim 3, Xedi.org discloses the limitations similar to those in claim 1, and the same rejection is incorporated herein. Xedi.org fails to specifically disclose the method wherein the first electronic format comprises at least one value pair. Kotok discloses the method wherein the first electronic format comprises at least one value pair (page 5, paragraph 4: Here, the DTD contains sets of elements and attributes in tag form, this is equivalent to value pairs).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi.org's method of retrieving data in an electronic format with Kotok's method of data containing value pairs, since it would have allowed a user to validate the structure of the document (Kotok: page 5, paragraph 4).

As per dependent claim 9, Xedi.org discloses the limitations similar to those in claim 1, and the same rejection is incorporated herein. Xedi.org fails to specifically disclose the method wherein the at least one type of data source comprises heterogeneous databases. Kotok discloses the method wherein the at least one type of

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data source comprises heterogeneous databases (page 3, paragraph 1: Here, the EDI X12 standard referenced in Xedi.org, is modeled on a relational database).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi.org's method of data retrieval with Kotok's method of using a database, since the X12 standard described in Xedi.org is reliant upon a database.

As per dependent claim 15, the applicant discloses the limitations similar to those in claim 3. Claim 15 is thusly rejected under Xedi.org and Kotok.

As per dependent claim 21, the applicant discloses the limitations similar to those in claim 9. Claim 21 is thusly rejected under Xedi.org and Kotok.

As per dependent claim 27, the applicant discloses the limitations similar to those in claim 3. Claim 27 is thusly rejected under Xedi.org and Kotok.

As per dependent claim 33, the applicant discloses the limitations similar to those in claim 9. Claim 33 is thusly rejected under Xedi.org and Kotok.

As per dependent claim 50, Xedi.org discloses the limitation similar to those in claim 49, and the same rejection is incorporated herein. Xedi.org further discloses:

- The universal annotated schema comprising a universal annotated DTD (page 11, last paragraph)
- The first local format comprises an XML document or at least one value pair (page 11)
- The local annotated schema comprises a local annotated DTD or local annotated table (page 11)

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Xedi.org fails to specifically disclose the method wherein the second local format comprises multiple relational databases. Kotok discloses the method wherein the second local format comprises multiple relational databases (page 3, paragraph 1)

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi.org's method of data retrieval with Kotok's method of using a database, since the X12 standard described in Xedi.org is reliant upon a database.

As per dependent claim 61, the applicant discloses the limitations similar to those in claim 50. Claim 61 is thusly rejected under Xedi.org and Kotok.

As per dependent claim 72, the applicant discloses the limitations similar to those in claim 50. Claim 72 is thusly rejected under Xedi.org and Kotok.

13. Claims 10-11, 22-23, and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi.org in further in view of Rein (XML '99: Quotes from the Conference Floor, 1999).

As per dependent claim 10, Xedi.org discloses the limitations similar to those in claim 1, and the same rejection is incorporated herein. Xedi.org further discloses creating internal representation relating the second format to the at least one type of data source (page 11- 14). Xedi.org fails to specifically disclose the method further comprising using a GUI tool. Rein discloses the method further comprising using a GUI tool (page 3, paragraph 2).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi.org's method of relating the format to a

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data source with Rein's method of using a GUI tool, since it would have allowed a user to visually select the format.

As per dependent claim 11, Xedi.org and Rein disclose the limitations similar to those in claim 10, and the same rejection is incorporated herein. Rein further discloses the method wherein the GUI tool can systematically organize a template from combining and merging (page 3, paragraph 2).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi.org and Rein's method of using a GUI with Rein's method of creating templates through a GUI, since it would have allowed a user to create hybrid applications using code libraries (Rein: page 3, paragraph 2).

As per dependent claim 22, the applicant discloses the limitations similar to those in claim 10. Claim 22 is thusly rejected under Xedi.org and Rein.

As per dependent claim 23, the applicant discloses the limitations similar to those in claim 11. Claim 23 is thusly rejected under Xedi.org and Rein.

As per dependent claim 34, the applicant discloses the limitations similar to those in claim 10. Claim 34 is thusly rejected under Xedi.org and Rein.

As per dependent claim 35, the applicant discloses the limitations similar to those in claim 11. Claim 35 is thusly rejected under Xedi.org and Rein.

14. Claims 12, 24, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi.org and Rein in further in view of Kotok.

As per dependent claim 12, Xedi.org and Rein disclose the limitations similar to those in claim 10, and the same rejection is incorporated herein. Xedi.org and Rein fail

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to specifically disclose the method accepting a single annotation for certain repeatable constructs in the template, and can also replicate the repeatable constructs a fixed number of times for customized annotation. Kotok discloses the method accepting a single annotation for certain repeatable constructs in the template, and can also replicate the repeatable constructs a fixed number of times for customized annotation (page 3, paragraph 1; Here, the data appears in every transaction set and is repeatable).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi.org and Rein's method of using a GUI tool with Kotok's method of using repeatable constructs, since it would have allowed a user to append identification information to data in the transaction.

As per dependent claim 24, the applicant discloses the limitations similar to those in claim 12. Claim 24 is thusly rejected under Xedi.org and Rein.

As per dependent claim 36, the applicant discloses the limitations similar to those in claim 12. Claim 36 is thusly rejected under Xedi.org and Rein.

15. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi.org in further in view of Sheth (Recursive DTD Query, 1999).

As per dependent claim 40, Xedi.org discloses the limitations similar to those in claim 37, and the same rejection is incorporated herein. Xedi.org fails to specifically disclose the medium wherein the universal DTD is annotated with recursive constructs. Sheth discloses the medium wherein the universal DTD is annotated with recursive constructs (paragraph 1).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi.org's medium for data processing with Sheth's medium for using a recursive DTD, since it would have allowed a user to query to a desired depth using a GUI (Sheth: paragraph 1).

16. Claims 45-47, 56-58, and 67-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi.org in further in view of Abjanic et al. (US 2003/0069975, 2003).

As per dependent claim 45, Xedi.org discloses the limitations similar to those in claim 42, and the same rejection is incorporated herein. Xedi.org fails to specifically disclose the method wherein the operations further comprise determining whether the annotated schema is reversible in view of the specification for deposit. Abjanic discloses the method wherein the operations further comprise determining whether the annotated schema is reversible in view of the specification for deposit (paragraphs 85-86: Here, the transform is the equivalent to the reverse; paragraph 98: Here, a transform is used to reverse).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi.org's method of depositing data with Abjanic's method of reversing data, since it would have allowed a user to store data in a format that would be able to be processed locally.

As per dependent claim 46, Xedi.org and Abjanic disclose the limitations similar to those in claim 45, and the same rejection is incorporated herein. Abjanic further discloses the method wherein the operations further comprise, responsive to a determination that the annotated schema is not so reversible, creating a revised

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annotated schema that is reversible, so that the data is depositable in accordance with the revised annotated schema (paragraphs 85-86).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi.org and Abjanic's method of depositing data with Abjanic's method of reversing data, since it would have allowed a user to store data in a format that would be able to be processed locally.

As per dependent claim 47, Xedi.org and Abjanic disclose the limitations similar to those in claim 46, and the same rejection is incorporated herein. Xedi.org further discloses depositing the data in accordance with annotations of the annotated schema (pages 11-114). Abjanic further discloses:

- The annotated schema and the revised annotated schema each comprise a respective DTD (paragraphs 85-86: Here, a revised schema is disclosed. Further, it is known in the art that each unique XML schema has its own unique DTD).
- The operations further comprise:
 - Developing a revised XML document for display to the user responsive to the revised annotated schema (paragraph 98: Here, a new XML document is revised to display the messages).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi.org's and Abjanic's method of reversing schemas with Abjanic's method of revising schema, since it would have allowed a user to store data in a format that would be able to be processed locally.

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As per dependent claim 56, the applicant discloses the limitations similar to those in claim 45. Claim 56 is thusly rejected under Xedi.org and Abjanic.

As per dependent claim 57, the applicant discloses the limitations similar to those in claim 46. Claim 57 is thusly rejected under Xedi.org and Abjanic.

As per dependent claim 58, the applicant discloses the limitations similar to those in claim 47. Claim 58 is thusly rejected under Xedi.org and Abjanic.

As per dependent claim 67, the applicant discloses the limitations similar to those in claim 45. Claim 67 is thusly rejected under Xedi.org and Abjanic.

As per dependent claim 68, the applicant discloses the limitations similar to those in claim 46. Claim 68 is thusly rejected under Xedi.org and Abjanic.

As per dependent claim 69, the applicant discloses the limitations similar to those in claim 47. Claim 69 is thusly rejected under Xedi.org and Abjanic.

17. Claims 48, 59, and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi.org in further in view of Malerba (Re: Notes on XML Queries proposal, 2000).

As per dependent claim 48, Xedi.org discloses the limitations similar to those in claim 42, and the same rejection is disclosed herein. Xedi.org fails to specifically disclose the method wherein the operation further comprise propagating the deposit to a join union of the specification. Malerba discloses the method wherein the operation further comprise propagating the deposit to a join union of the specification (page 1: Here, joins in XML are disclosed, and the implementation of the XMLQuery object).

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It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi.org's method of processing with Malerba's method of using a join union, since it would have allowed a user to create a data set containing information from more than one specification.

As per dependent claim 59, the applicant discloses the limitations similar to those in claim 48. Claim 59 is thusly rejected under Xedi.org and Malerba.

As per dependent claim 70, the applicant discloses the limitations similar to those in claim 48. Claim 70 is thusly rejected under Xedi.org and Malerba.

18. Claims 51, 62, and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi.org in further view of Abjanic and Malerba.

As per dependent claim 51, Xedi.org discloses the limitations similar to those in claim 42, and the same rejection is incorporated herein. Xedi.org further discloses:

- The processing includes:
 - First processing the specification in accordance with a universal annotated schema adapted to all document types supported by a given industrial electronic document specification language, in order to convert the specification into a first local format ((page 10, last paragraph; pages 12-13, Converting EDI and XML)
 - Second processing the first local format in accordance with the revised annotated schema to convert the first local format to a second local format (page 12, Figure 8; pages 11-14)

Xedi.org fails to specifically disclose:

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- The operations further comprise:
 - Determining whether the annotated schema is reversible in view of the specification for deposit
 - Responsive to a determination that the annotated schema is not so reversible, creating a revised annotated schema according to which the specification for deposit is reversible
- Depositing includes propagating the deposit to a join union of the specification

However, Abjanic discloses:

- The operations further comprise:
 - Determining whether the annotated schema is reversible in view of the specification for deposit (paragraphs 85-86; paragraph 98)
 - Responsive to a determination that the annotated schema is not so reversible, creating a revised annotated schema according to which the specification for deposit is reversible (paragraphs 85-86)

Further, Malerba discloses:

- Depositing includes propagating the deposit to a join union of the specification (page 1)

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi.org's method of processing with Abjanic's method of revising schemas with Malerba's method of depositing, since it would have allowed a user to deposit a processed revised schema in order to meet requirements of the local platform.

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As per dependent claim 62, the applicant discloses the limitations similar to those in claim 51. Claim 62 is thusly rejected under Xedi.org, Abjanic, and Malerba.

As per dependent claim 73, the applicant discloses the limitations similar to those in claim 51. Claim 73 is thusly rejected under Xedi.org, Abjanic, and Malerba.

19. Claims 52, 63, and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xedi.org, Abjanic, and Malerba in further view of Kotok.

As per dependent claim 52, Xedi.org, Abjanic, and Malerba disclose the limitation similar to those in claim 51, and the same rejection is incorporated herein. Xedi.org further discloses:

- The universal annotated schema comprising a universal annotated DTD (page 11, last paragraph)
- The first local format comprises an XML document or at least one value pair (page 11)
- The local annotated schema comprises a local annotated DTD or local annotated table (page 11)

Xedi.org, Abjanic, and Malerba fail to specifically disclose the method wherein the second local format comprises multiple relational databases. Kotok discloses the method wherein the second local format comprises multiple relational databases (page 3, paragraph 1)

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have combined Xedi.org, Abjanic, and Malerba's method of data

retrieval with Kotok's method of using a database, since the X12 standard described in Xedi.org is reliant upon a database.

As per dependent claim 63, the applicant discloses the limitations similar to those in claim 52. Claim 63 is thusly rejected under Xedi.org, Abjanic, Malerba, and Kotok.

As per dependent claim 74, the applicant discloses the limitations similar to those in claim 52. Claim 74 is thusly rejected under Xedi.org, Abjanic, Malerba, and Kotok.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- "XML: To Be Or Not To Be?" EXTOL, Inc.: Discloses evolution of EDI with XML.
- US 20020143823A1 Stevens: Discloses conversion for translating structured documents.
- US 20020156811A1 Krupa: Discloses converting and XML data structure into a relational database.
- US 20020184263A1 Perinet et al.: Discloses converting data to XML.
- US 5629846 Crapo: Discloses document translation.
- US 20010039544A1 Chakrabarti et al.: Discloses interactive database creation.
- US 20020133387A1 Wilson et al.: Discloses fulfillment and supply chain management.
- US 20020099735 Schroeder et al.: Discloses system for conduction electronic commerce.

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- US 6697999 Breuer et al.: Discloses automatic document formatting method.
- US 20020073119A1 Richard: Discloses converting data having markup formats.
- US 20020095440A1 Burgess et al.: Discloses data format conversion.
- US005173853A Kelly et al.: Discloses data format conversion.
- US005745908 Anderson: Discloses converting to a markup language.
- US005987403A Sugimura: Discloses conversion.
- US006119137A Smith: Discloses dynamic document conversion at a server.
- US006393442B1 Cromarty et al.: Discloses format transformations.
- US006442577B1 Britton et al.: Discloses formatting web pages for web sites.
- US006569207B1 Sundaresan: Discloses converting schemas.
- US006684369B1 Bernardo et al.: Discloses web site creator using templates.
- US006687878B1 Eintracht et al.: Discloses synchronizing/updating client notes with annotations from a database.
- US006691279B2 Yoden et al.: Discloses translation.
- US 20020174145A1 Duga et al.: Discloses automatic formatting of hypertext.
- US 20030121000A1 Cooper et al.: Discloses converting files to markup language files.

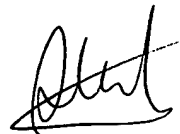
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle R Stork whose telephone number is (571) 272-4130. The examiner can normally be reached on Monday-Friday (7:00-3:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (703) 308-5465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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